



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hideo Kondo
Serial No. : 10/010,348 ✓
Filed : November 8, 2001
Title : MICROCOMPUTER

Art Unit : 2817
Examiner : Joseph Chang

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO ACTION OF JUNE 30, 2003

REMARKS

Claims 1-11 are pending.

Claim Rejections 35 USC 102

The Examiner has maintained the rejection of claim 1 as being anticipated by the St. Pierre, Jr. et al. patent (US 6351809 B1).

Applicant submits that the Pierre patent fails to teach or suggest the claimed subject matter for the following reasons.

Claim 1 recites:

1. (Original) A microcomputer comprising a **USB interface circuit** for interfacing transmission and receipt of data between a host and the microcomputer **through a USB signal line**, comprising state setting means for setting the USB signal line to a level in a non-connection state for a period before the USB interface circuit can **respond to a bus reset signal sent from the host**. (Emphasis Added)

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

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SEPTEMBER 30, 2003

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The applicants respectfully assert that the Pierre patent fails to teach or suggest the above quoted feature for the following reasons.

The office action states that the functional limitation “respond to a bus reset signal sent from the host” reads as “until the microcontroller on the device is booted up” as recited in the Abstract of the Pierre patent. The office action goes on to refer to a passage in the Pierre patent that the “host system 20 sends a null character to interface 30 at 300 baud to instruct on-board FPGA 32 to reset microcontroller 34” (See column 10, lines 12-44 and also step 901 in figure 9. Although the “reset” signal is from the host, it is sent over a separate, different RS-232 serial line and **not** “through a USB signal line” as recited in claim 1 of the current application. Thus, the Pierre patent does not anticipate claim 1 for at least this reason.

Moreover, FIG. 10 of the Pierre patent shows an interface device 30 having a microcontroller 34 coupled to a host system 20 through a USB port 40. The device 20 includes a switch 90 maintained in a non-conductive state **until** the microcontroller on the device is boosted up and has retrieved **identification codes**. (See Abstract and column 13, line 64 to column 14, line 24 of the Pierre patent) The USB port does **not** respond to a reset signal from the host system 20 over the USB interface, because, for one reason, as mentioned above, the reset signal is sent over a RS232 line which is different from and **not** “through a USB signal line” as recited in claim 1 of the present invention. That is, the Pierre patent does not disclose a USB interface circuit for interfacing transmission and receipt of data between a host and the microcomputer “through a USB signal line” as recited in claim 1. For at least this reason, applicant submits that claim 1 is patentable over the Pierre patent.

This feature also may have one or more of the following advantages over the prior art. For example, using a USB signal line to communicate data and the reset signal obviates the need to provide a separate signal line. In the Pierre patent, the system requires both a USB circuit and a separate RS-232 to communicate between the host and the USB circuit. In contrast, in the current application, the use of the same signal line for data and reset may allow reduced circuitry resulting in reduced cost and complexity.

Furthermore, the “reset” signal of the Pierre patent is not equivalent to the reset signal in the claimed invention. For example, in the Pierre patent, the “host system 20 sends a null character to interface 30 at 300 baud to instruct on-board FPGA 32 to **reset** microcontroller 34.” (See column 10, lines 12-44 and also step 901 in figure 9. That is, the characters sent from the host to the microcontroller is used to reset the microcontroller. In contrast, in the current application, the reset signal is used to initialize the USB circuitry. (See steps 214 and 215 of FIG. 3 and accompanying explanation on page 15, line 19 to page 16, line 6 of the current application) For at least this additional reason, Applicant submits that claim 1 is patentable over the Pierre patent.

In view of the above comments, Applicant respectfully requests withdrawal of the rejections and allowance of the application.

Allowable subject matter

Claims 2 to 11 have been deemed to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Applicant thanks the Examiner for making claims 2-11 allowable subject matter. However, for the reasons explained above, Applicant declines writing claims 2 to 11 in independent form as suggested by the Examiner.

In conclusion, Applicant respectfully requests withdrawal of the rejections and allowance of the application.

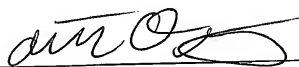
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Respectfully submitted,

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